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INTRODUCTION

We appreciate this opportunity to testify on the implementation of the Healthy Forests Restoration Act (P.L. 108-148). HFRA remains a controversial law. However, this testimony will not address areas of concern related to environmental procedures and safeguards. Instead, The Wilderness Society welcomes this opportunity to discuss three substantive areas of broad agreement: HFRA's attention to community protection, its emphasis on collaborative processes, and the need for improved performance measures and reporting procedures if these objectives are to be achieved.

A forthcoming report from The Wilderness Society, entitled *Following the Money: The National Fire Plan, Performance Measures, and Funding in the USDA Forest Service*[1], offers empirical data tracing appropriated money as it moves through the Forest Service system and ultimately enables work on the ground. The report also traces performance measures and explores the role of incentives embodied there. Although HFRA is not formally considered part of the National Fire Plan, certainly the legislation was designed within the context of fire management and is intended to reduce risks to communities. As such, the research behind our report is both relevant and important for better understanding the challenges facing effective implementation of HFRA. In particular, we would like to identify three major problems in the implementation of HFRA and the National Fire Plan:

- Funding for hazardous fuels reduction is overshadowed by the many problems associated with suppression spending. Additionally, within the hazardous fuels program funding disproportionately favors federal land, even though fire does not obey ownership boundaries. For communities to be made truly safe, substantially more funding must be devoted to the State & Private Forestry line within the Wildland Fire budget.
- Despite policy guidance to utilize a collaborative process, neither funding nor the incentives created from performance measurement support this practice. As a result, fire managers are ill-equipped to establish the recommended long-term collaborative relationships with stakeholders.
- Reporting practices are deeply flawed in the Forest Service. Our research shows that cost per acre estimates are very difficult to predict with accuracy, publicized hazardous fuels treatment numbers are exaggerated, and the degree of success

[1] An executive summary of this report is enclosed. The final report will be posted on The Wilderness Society's web page (www.wilderness.org) by the end of March.

reported for collaboration is simply impossible. Public trust depends on improved agency accountability.

BACKGROUND

Our analysis of Forest Service funding and performance measures begins with the assumption that the allocation of federal money within the agency reflects national and political priorities. In other words, the distribution of scarce resources to carefully chosen public land management programs is purposeful -- not random -- and based on strategy-setting at a number of levels within the government. The use of performance measures as a tool to enhance accountability and data collection at the field level is designed as a way for money to be directly tied to outputs; that is, through the use of this mechanism the public should be able to track what it got for its tax money, the executive managers should be empowered to redirect funds to places in greatest need, and accountability ought to be improved at every level of the agency. Perhaps most importantly, performance measures function as powerful incentives for agency behavior. It is impossible to understand the flow of money from the Washington Office downward without also tracing accomplishments as they are reported upward.

Empirical data in the report, used for illustration in this testimony, comes from Fiscal Year 2003 (FY03), since that is the most recent year with complete and final data. In particular, data was obtained from the Washington Office of the USFS, Rocky Mountain Region 2 and two National Forests in Colorado, the Arapaho-Roosevelt and the Pike/San Isabel. The Colorado State Forest Service provided state-level information. Other sources of data include federal budget documents, reports from the Government Accountability Office (GAO), extensive interviews of agency staff and outside experts, and a comprehensive review of the literature.

IMPLEMENTATION CHALLENGES FOR HFRA

This testimony responds primarily to Title I of HFRA, the section that seeks to expedite processes for vegetation treatments on and adjacent to federal lands. Two critical implementation challenges stand out: achieving the desired hazardous fuels reduction treatment acres, and creating legitimate collaborative processes to expedite those outputs. For each of those categories, I will discuss funding issues and the role of performance measures.

I. Outputs: Acres Treated for Hazardous Fuels Reduction

A. Funding

As this committee is certainly aware, the biggest problem plaguing effective funding of long-term wildland fire management goals is the cycle of suppression appropriations, over-spending, borrowing, and partial repayment. With suppression funding accounting for approximately 70% of all Wildland Fire Program (Title IV of the Forest Service's budget) dollars spent, many have identified it as a primary source of concern. Current

incentives do not encourage cost savings, and fire managers on the ground have something of a "blank check mentality". For example, in FY03, which was a relatively mild fire year, the FS was appropriated a total of $351.9 million for suppression, including Congressionally authorized emergency appropriation funds. Still, suppression expenditures for that year were $1,023 million, leaving a $671.1 million shortfall which was covered only by transferring money out of other National Forest accounts. As the GAO noted in a recent report, when money is transferred out of other fire accounts, projects are frequently delayed or cancelled. Since HFRA does not authorize suppression-immune accounts, the suppression borrowing pattern is likely to interfere with HFRA-related hazardous fuels reduction money reaching the ground.

Secondly, effective planning requires realistic cost estimates for the work, but the current method for estimating costs is deeply flawed. Most cost estimates are given in a cost per acre format, even though costs in the southeast are vastly different from those in the west. Estimates in the literature range from $31-$2500, making any average essentially meaningless. Even two forests located along Colorado's Front Range, the Arapaho-Roosevelt (ARNF) and the Pike/San Isabel (PSI), show highly variable costs. In FY03, the ARNF was allocated approximately $3.6 million for hazardous fuels reduction treatments; they treated nearly 5,000 acres, 87% of them in the Wildland-Urban Interface (WUI), and were able to use prescribed burning for 63% of the work. By contrast, the PSI got $5.8 million (60% more than the ARNF), treated 18,869 acres (280% more than the ARNF) with similar WUI and prescribed burning percentages as the ARNF. The bottom line of these wildly different outputs is that it cost the ARNF $736.74 per acre, more than double the $311.14 it cost the PSI. As a result, the two neighboring forests are able to accomplish a vastly different amount of work with only slightly different pots of money.

Explanations for this disparity have been many and varied. Some insiders have suggested that the use of discrete dollars was more efficient in the PSI for administrative reasons, specifically the hiring of more new field staff instead of planners. Others interpret the results to be the inevitable result of the somewhat different terrain within each forest's boundaries. This explanation is based both on the PSI's perceived ability to treat larger areas at one time, and its harvesting of greater value product to help offset costs. Whatever the reason, these two forests are located in very similar forest types, have extensive Wildland-Urban Interface areas, and are able to burn as opposed to mechanically treat approximately the same proportion of acres; the difference in cost/acre highlights the tremendous variability in costs and accomplishments even within a limited geographic area. More research must be devoted to understanding the factors that influence costs, and thereby increase the agency's ability to accomplish more work with limited funds.

Finally, effective implementation of HFRA will be hampered by the limited funding devoted to the State & Private Forestry line. In 2001, federal planners identified 11,376 "communities at risk" (66 FR 751-777) as an indication of the extent of the land ownership problem facing fire managers. Since fire doesn't recognize ownership boundaries, private land must be integrated into landscape-scale problem definition and fire management planning. State forest officials therefore have a fundamental role to play

in ensuring that public fire managers work across ownership lines. The development of cooperative management relationships to achieve these goals is of utmost importance, and the passage of money from the federal level to the state is a critical building block toward that end.

HFRA policy and implementation documents clearly state the critical importance of working across administrative boundaries, but those words simply cannot be matched by action unless funding backs intention. Policy objectives are only as meaningful as the resources assigned to support them. Federal reluctance to take responsibility for private actions is in many ways understandable, as it is rooted in American attitudes concerning private property; still, skyrocketing suppression expenditures suggest that taxpayers already foot the bill for private landowners who haven't taken the necessary steps to protect their properties. Funding hazardous fuels reduction exclusively on federal lands is incomplete and will ultimately undermine program success. The President's FY06 budget actually *decreases* funding allocated to State & Private Forestry, reducing it to a mere 3% of total money in the Wildland Fire Program. The Forest Service estimates that 59 million private acres in the "community protection zone" are at high risk, but the agency is powerless to address fuel treatment needs there with such limited funds. Increasing HFRA funding to state and private entities will go a long way toward communicating commitment, reducing fire risk and building capacity to bridge the public-private divide.

B. Performance Measures

To improve tracking of progress toward policy goals, the 1993 Government Performance Results Act (GPRA) requires federal agencies to integrate performance measures into their strategic plans. In the case of HFRA, the desired fire-related outcomes mirror those in policy documents in the National Fire Plan: "to reduce the risks of damage to communities, municipal water supplies and federal lands from catastrophic wildfire." But measuring risk reduction is complex and long-term; indeed, most outcomes, like the ones quoted above, tend to be programmatic and large-scale and, necessarily, difficult to assess. Outputs, on the other hand, are incremental steps toward outcomes; for example, if the outcome is reduced risk from fire, one output is "number of acres treated for hazardous fuels reduction." The implicit assumption, of course, is that the measurable output is an acceptable indicator of progress toward an un-measurable outcome. But The Wilderness Society's research suggests that, in fact, fire program outputs and outcomes rarely line up well.

Linking annual outputs to long-term outcomes is exceedingly challenging in any policy-making area. The many intervening variables between agency inputs and long-term outcomes are commonly called the "black box" of policy making. That is, differentiating the impact of one policy from other natural and planned phenomena that also have an impact is often impossible. In the case of land management, there are additional layers of complexity. For example, the desired outcomes themselves are oftentimes invisible; identifying "forest health", for example, has eluded scientific consensus in part because there are simply too many variables at play. Furthermore, the time horizon for ecological

outcomes is oftentimes so long (decades, generations, centuries) that annual outputs are rendered distant contributors. In short, ecological realities lend unique problems to land management agencies' attempts to implement GPRA.

The way the Forest Service currently measures hazardous fuels treatments is flawed. The measurement and reporting of acres treated has become something of a hallmark for demonstrating HFRA success to audiences both within the agency and to the public. Forests report the number of acres they treat, and track these acres both by method of treatment (prescribed fire or mechanical means) and location (priority Wildland-Urban Interface, or "other"). This measure is intended to demonstrate increased activity on public lands, more active management, and a concerted effort to reduce the risk from fire. The assumption is that reducing fuels will reduce fire risk, but this assumption is an excellent example of the confusion between outputs and outcomes. Does reducing fuels equal decreasing fire risk? An exhaustive search of the scientific literature reveals a scant number of studies on the topic, none of them conclusive. It is likely that reducing fuels is but one factor that contributes to landscape-scale, long-term effective fire management. Other program components, including fire use in appropriate locations and enhanced cooperation by private landowners, are equally critical for success. Still, the "acres treated" measure is widely used and is considered the primary proxy for assessing success in the highly funded (and highly publicized) hazardous fuels component of the fire program.

One way that the inclusion of performance measures influences activity on the ground is through incentives. Since so many key functions of the Forest Service's work defy easy quantification, managers operating under a system where their success is indicated by performance targets are drawn to performing those tasks that produce measurable outputs rather than those tasks that might be more important yet less tangible. Any agency that depends on a limited number of measures to define its ability to meet target goals will go to great lengths to demonstrate success. For performance measures to guide fire management effectively, they must be understood not merely as reporting tools for work that has already been completed, but as incentives to influence what work will get done in the first place. Likewise, policy-makers should bear in mind that a manager who chooses to perform a given activity, like fuels reduction, does so only by also choosing *not* to perform other necessary work that is either less well funded or less easily captured by performance measures. The opportunity costs of incentive-driven behavior are real. Performance measures must be constantly reviewed and adjusted to produce the best results.

Lastly, this heavy reliance on performance measures as indicators of HFRA implementation success places a lot of pressure on managers to report their work consistently and accurately so that it may be included in national level totals and reported to the American public. Research conducted by GAO, Forest Service employees, and The Wilderness Society comes to identical conclusions: the agency is still struggling to measure and report with necessary rigor. Prominent among the many data collection problems is the protocol whereby forests report acres as "treated" when they go under contract, not when the acres have actually been burned or thinned according to

prescription. Defenders of this practice point out that it is the job of the USFS to develop contracts and negotiate with private entities to get the work done, not necessarily to do the work themselves. Once a parcel of land has successfully gone under contract, the money is placed in an "obligated" category and considered effectively spent in that fiscal year despite the many months or years that will likely transpire before the actual work is complete and payment is made.

For example, in FY03 the Arapaho-Roosevelt reported having treated 4,957 acres. However, of those, 1,505 (30%) were merely contracted to outside entities. Nearly 2/3 of the work was accomplished internally and therefore verified as completed; the rest of the work was almost certainly not done by the end of the fiscal year, but since the contract administration for the job was, it was recorded as complete. These practices may make sense administratively but are quite misleading for the public. In Washington DC, acreage numbers are consolidated and loudly reported as annual accomplishments; these accomplishments are then used to tout success and justify continued funding for the program. For example, to demonstrate the success of the Healthy Forests Initiative in treating hazardous fuels, the Washington Office announced that the agency had treated 335,000 acres in 2004, and of those 126,300 were in the high-priority WUI. If the above 30% rate is consistent throughout the agency, then in fact only 234,500 acres were actually *treated* that year.

Other data collection habits are equally problematic. For example, forests track acres treated by location, type of treatment, and more recently have also begun to record fire regime and condition class changes. In many cases, acres get counted twice or even three times. A single WUI acre might be thinned one year, burned the next, and contribute to a landscape-scale condition class change. Most readers of the data would easily conclude that three times as much terrain had actually been treated, since the treatment of that single acre would appear in several columns over two different years. <u>If the agency seeks to improve public trust and strengthen accountability within its own ranks, then reporting practices must be tightened.</u>

II. Collaboration (Process)

Direction for the Forest Service's use of collaboration in the implementation of HFRA comes specifically from the 10-year Comprehensive Strategy Implementation Plan. Facilitated by the Western Governors Association and created by a stakeholder group in 2000, the Strategy was the first place to codify the term "collaboration" in a formal policy document. In that piece, the authors include collaboration not only in the title, but in the short list of "core principles." The framework for collaboration presented there stresses the importance of communication "across public and private lands, administrative boundaries, geographic regions, and areas of interest" and reminds readers that "successful implementation will include stakeholder groups with broad representation."

The 2001 Federal Wildland Fire Management Policy, often considered to be the backbone of the National Fire Plan, also weighs in on collaboration. The Policy notes that "uneven collaboration" has contributed to unsuccessful implementation of the 1995 Fire

Policy. Likewise, the Government Performance and Results Act, the law that guides agency planners to integrate performance measurement into its strategy, requires "consultation" with stakeholders. Similar guidance on process is present in each of the policy documents associated with the National Fire Plan. There is widespread consensus that an inclusive collaborative process is integral to the implementation of HFRA and essential for its success.

A. Funding

If collaboration is so prominently featured in policy documents, one might expect there to be a line item in the budget to support the enactment of this ideal. At the very least, the agency's commitment to collaboration should be visible in investments in capacity-building. Unfortunately, this is not the case. The USFS's National Partnership Office has one employee, reflecting less than wholehearted financial support for the development of better collaborative tools. This Partnership Office Director reports that at the national level, interagency cooperation is strong and thriving like never before. These relationships, though, are more "partnerships", characterized by the building of coalitions among entities with *similar* interests. Building inter-agency relationships is absolutely critical, and these recent cooperative efforts are worthy of accolades.

True collaboration, however, is the building of coalitions among entities who often harbor *different* interests and objectives. At the local level, there are some collaborative success stories. Forests in many areas regularly foster long-term advisory panels consisting of local citizens. HFRA asks communities to prepare "Community Wildfire Protection Plans," thereby bolstering opportunities to connect local governments, fire planners, and interested citizens. Stewardship Contracting also encourages this kind of group formation in its "multi-party monitoring" requirement, a provision that encourages the formation of stakeholder groups to help determine where, when, and how projects will be conducted. These developments, too, have the full support of The Wilderness Society and represent significant progress in the implementation of the collaborative ideal.

One missing link is regional level collaboration. The gap is significant and represents a missed opportunity to engage regional interest groups and citizens at the ecologically important landscape-scale. A rare example of progress in this arena comes from an example close to my home: Colorado's Front Range Fuels Treatment Partnership was hailed last year by Montana governor Judy Martz as "the best example [in the state] of cross-jurisdictional collaboration, planning and implementation on forest health."

At all levels, agency planners are torn between investing limited dollars on collaboration efforts or spending them on treating acres. Citizens are burdened by the time and resources needed to maintain community organizations dealing with fire. Perhaps most critically, the preparation of Community Wildfire Protection Plans is outside the capacity of many low-income communities; as a result, the land management agencies implicitly prioritize the protection of more well-to-do areas that are able to furnish their own

funding to support this type of planning. For collaboration to succeed, financial support must back the policy ideals.

B. Performance Measures

The 10-Year Implementation Plan tried to provide land managers with guidance by matching its stated goals with performance measures. However, measuring collaboration is elusive and the Plan offers nothing specific to guide participants. There is only one performance measure which even comes close to assessing collaboration success: Goal 4, to "promote community assistance" seeks to improve community capacity and suggests counting the "% of communities at-risk that initiate volunteer and community funded efforts."

The current wildland fire management program offers scant opportunities to assess managers' success at establishing lasting collaborative processes. It may be argued that collaboration is not an end in itself, and instead should be seen as a way to achieve more substantive work which *is* then measured. But one of the unfortunate results of this gap in performance measurement is a fire management administration that is understandably reluctant to invest in such an expensive and time consuming activity as collaboration. Performance measures thus function as powerful incentives for decision-making, in this case by omission. Agency personnel will respond to incentives by directing limited resources toward places where efforts will be recognized and away from places where investments are invisible.

Recently released performance data for the USFS presents some confusing data on this issue. Under Goal #1 of its long-term Strategic Plan, to "reduce the risk from catastrophic wildfire", the agency lists the following performance measure: "Number of acres of hazardous fuels treated in the wildland-urban interface and percent identified as high priority through collaboration consistent with the 10-Year Comprehensive Strategy Implementation Plan." As discussed in this testimony, the Implementation Plan directs planners to include all manner of stakeholders, including community groups as well as state, local and national government entities. In response to this measure, the USFS reports that in 2002 (their baseline year) they had nothing short of 100% success at meeting this collaboration target. Is the agency truly claiming that every one of the 764,367 acres they treated that year was identified as high-priority through collaboration? This cannot be true. Copious evidence suggests that gaps in collaboration implementation are widespread. To publish inaccurate data is to compromise trust-building and hamper implementation success. After all, if current collaborative efforts are achieving 100% of desired targets, then there is no room for improvement.

In sum, the lack of funding for collaboration, lack of national-level guidance, and lack of effective performance measures all contribute to incomplete implementation of the collaboration ideal.

CONCLUSIONS

With funding for hazardous fuels reduction already unstable due to overflowing suppression spending, it is perhaps not surprising that there isn't money left to support the inclusion of private landowners at risk and the development of better collaborative processes. But such funding must be made available if HFRA's policy ideals are to be implemented.

Funding streams are rightly matched with accountability structures like performance measures. Indeed, incentives are nearly always embedded in policy direction. Those who develop such incentives must re-double their efforts to tighten the link between what is being encouraged, the opportunity costs of those management actions, and the overall policy goals. The first step is to identify which measures work and then eliminate those that are either not being tracked successfully or result in undesirable outputs. From there, policy makers can craft new measures to better capture the wide variety of activities under the fire management umbrella, carefully monitor how well they are working, and continue to update them indefinitely. Too much tinkering will result in measures that are not comparable across years, and to the degree possible consistency should be sought. As measures are tightened, agency planners must rigorously keep in mind the difference between outputs and outcomes. The difference between the two speaks to the need for more funding devoted to research that can help support links between individual projects at the forest level and over-arching land management objectives. Separating the two will also help agency communicators better reach both internal and external audiences, and thereby build trust with the public.

It is unlikely that any magic bullet will effectively remedy the reporting difficulties that continue to plague the USFS's implementation of performance measures. Performance measures simply do not work if they are not accurately tracked and reported; improving accountability is only feasible if results are consistently and accurately communicated to a variety of audiences.

To improve the chances of HFRA implementation success, adjustments need to be made not to the policy documents themselves, but to the implementation guidance and many supporting protocols. So many factors that contribute to our current wildland fire "problem" are largely beyond federal control: drought in the west, climate change, development in the Wildland-Urban Interface, and decisions made by private landowners who live in risk-prone areas. Targeting process (collaboration) and outputs (acres treated) are two things we can influence. Reform of the supporting governance structures, including funding streams and incentives created through performance measurement, will go a long way toward realizing the potential of HFRA to protect communities from the risks of wildfire.